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FEDERAL COMMUNICATIONS COMMISSION

OFFICE OF THE SECRETARY

March 22, 1993

Ms. Donna R. Searcy Secretary Federal Communication Commission 1919 M Street, N.W., Room 222 Washington, D.C. 20554

Re: Comments in ET
Docket No. 93-7

Dear Ms. Searcy

Transmitted herewith, on behalf of Media General Cable of Fairfax County, Inc., a cable system operator providing service to Fairfax City and Fairfax County, Virginia, are the original and four (4) copies of its Comments in the above-referenced docket, concerning compatibility between cable system converters and consumer electronics equipment.

Should you have any questions with respect to the above matter,

please contact the undersigned.

Wayne Coy Jr.

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Enclosures

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BEFORE THE BECEIVED FEDERAL COMMUNICATIONS COMMISSION FEDERAL COMMUNICATION COMMISSION COMMUNICATION COMMISSION COMMISSION COMMUNICATION COMMISSION COMMISS

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

In the Matter)			
Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992))))	Docket	No.	93-7
Compatibility Between Cable Systems nd Consumer Electronic Equipment)))			

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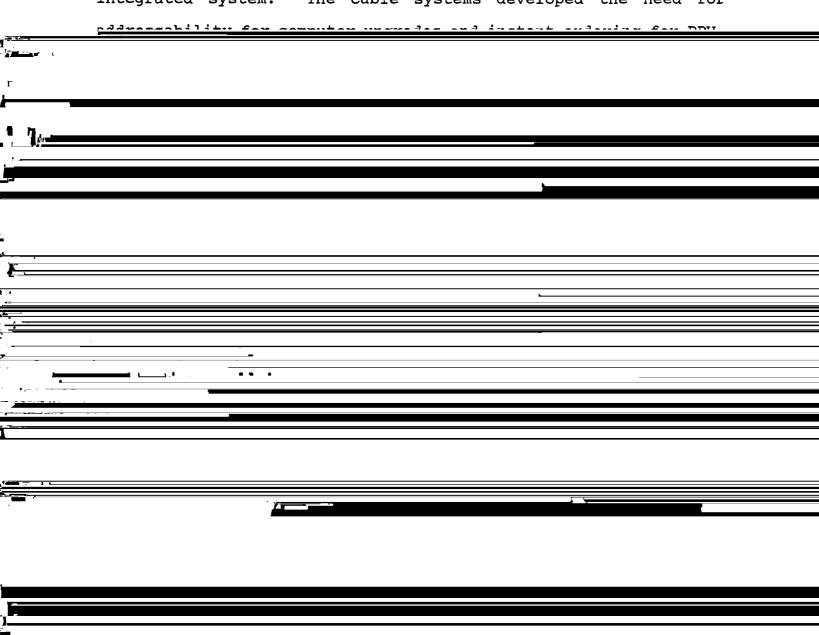
and are receiving basic service. The total capital expenditure to date is \$333,000,000.00.

- 2. It operates under a franchise requiring a 5% Franchise Fee on total revenues, with annual grant payments totalling 1.25% of total revenues plus \$225,000.00; a one-time franchise acceptance fee of \$225,000.00; equipment grant obligations totalling \$3,200,000.00; a \$4,800,000.00, 400 mile ICN network -- with half of its bandwidth used solely by Fairfax County as mandated by the franchise that has an annual operating cost of \$457,000.00; a commitment to provide 19 channels for public, educational and governmental use of which 11 channels are currently active, at an annual operating cost of \$176,000.00. The 400 county facilities receive service at no cost. In addition Media General has been paying just under \$1,000,000.00 every six months to the Copyright Royalty Tribunal.
- 3. The system has over 200,000 subscribers, with 50% subscribing to one or more premium channels in addition to the basic tiers of service. Each subscriber television set has a converter associated with it.
- 4. The County employs a total of 11 employees in the Cable Regulatory Division of its Consumer Affairs Office who zealously protect and preserve what they perceive to be the interests of the public with respect to cable service. The County also employs 23 additional people whose function is to provide programming for two PEG channels currently assigned to the County.

OVERVIEW

- 5. Media General feels there is great merit in a long term objective of compatibility between cable system conversion systems and consumer electronic equipment. The present situation of some compatibility, partial compatibility, or complete incompatibility is, without a doubt, wasteful, inefficient, frustrating and annoying. However, the difference between wanting the problem to go away and actually accomplishing such a result is a very great one indeed. Later in these Comments, Media General provides a series of answers to the specific questions raised in paragraphs 12, 13, and 16 of the Notice.
- 6. When most of the larger systems, such as the one operating by Media General in Fairfax County were built, there were essential standards required by the franchising authority. case of Media General, the franchising authority required interactivity, and capacity for 120 channels. This necessitated the use of a dual-input converter. At the time of the Fairfax County franchise award, virtually no television, or other consumer electronic item, could accommodate 120 channels. The only test was developing an interface with the subscriber that met the particular system needs. Although the number of manufacturers of converters has remained relatively small, the number of customized features for each system remains very significant. After all if a manufacturer can see a market for 200,000 units, it is well worth its while to provide such customized packaging.

7. Secondly, the number of technological advances that have been made in the last 10 years alone have created a kind of "leap frogging" effect. The earliest "cable ready" sets were fine but only for systems using the number of channels on a particular set. Thus a converter was created that could extend the capacity of the receiver to all available cable channels. Then manufacturers of sets wanted to integrate VCR, cable and the TV set into an integrated system. The cable systems developed the need for



When do you seek compatibility? If compatibility is sought today (meaning 1993) will it include or exclude compression technology other forms of digital technology, or HDTV? Will inclusion of one or more of these yet-to-be implemented technologies exclude those that don't employ that technology? When will we know that technology has advanced as far as it can? The stakes may become even higher if all present converters have to be replaced twice or three times, not just once.

10. Finally, not to be forgotten in the mix is the cost of replacing or upgrading converters or standardizing the "cable ready" features on all TV sets. Who will pay? Ultimately the consumer/ subscriber will have to pick up the tab either through a one-time-only or deferred converter replacement payment or higher TV set cost. How much is compatibility worth? Media General does not see any way at the present time that it can operate its system without its own converter in the home. Yet requiring that all sets meet Media Generals standards, which may well exceed those of thousands of smaller systems would create a wholly unnecessary cost increase in other areas of the country (even as close as neighboring Loudoun County in Virginia).

THE SOLUTION

Il. The first thing that should be done is remove the term "cable ready" from the language. It is a term with no meaning. It gets in the way of information. Instead of helping, it only confuses. The FCC should establish the requirement that consumer

electronics manufacturers and retailers be prohibited from promoting a unit as cable compatible or cable ready, but must provide a listing of the unit's features and advise consumers to consult with their local cable operator to determine the extent to which the features of the unit are helpful or not. Going the other direction, a cable operator should provide, in writing, to its subscribers with a list of features that any unit must have to be considered compatible with the system. Compliance by the manufacturers, vendors, and cable operators could be monitored and enforced by the local franchising authority (ies).

- 12. Media General believes that the cable industry and the electronics industry can, working together, provide a better solution than one imposed by a regulatory authority. The Committee now in place with representative from the National Cable Television Association (NCTA) and the Electronics Industry Association (EIA) should be charged with the responsibility of providing the framework that will lead to an acceptable level of compatibility. Faced with a deadline (imposed by the FCC), Media General is confident a solution could be reached.
- 13. Finally, with all of the interested parties at one table, a sensible phase-in policy for technological innovations similar to the introduction of the all-channel TV set in 1964 may develop.
- 14. In short, Media General sees the movement toward compatibility as very positive but not one that is achievable quickly or in the short or medium-haul. It is a worthy goal that

must be approached slowly and deliberately lest the consuming public be asked to fund it over and over.

Respectfully submitted,

MEDIA GENERAL CABLE OF FAIRFAX

By _

Wayno Coy In Fed

March 22, 1993

Paragraph 12 - Cable Technologies and Operating Practices

- o What technologies and technical systems do cable systems currently use to provide service to subscribers' premises?
 - Addressable converters
 - Non-addressable converters
 - Direct hook-up scenarios w/o converters
 - Interdiction
- o How many channels of service are provided on a cable system and what frequencies are used for delivery of those channels?
 - Typically 36 to 78 channels, or 300 mHz to 550 mHz.
- o In what circumstances and to what extent are dual cables used to deliver service?
 - Dual cables are typically utilized to increase channel offerings by expanding available bandwidth.
- what methods and technologies do cable systems use to prevent theft and unauthorised reception of service (the various scrambling and encryption systems, converter and/or descrambler units, interfering carrier systems, channel blocking traps, addressable systems, interdiction systems, etc.)? What are the operating principles used in each of these approaches?
 - Addressable scrambling/descrambling converters are devices that are linked to the billing system. They are controlled remotely. They can facilitate adding pays, deleting pays and pay-per-view buys without mechanical changes to the system plant. If basic signals are scrambled, addressable converters deter theft of such service.
 - Interfering carrier systems utilize "jamming" carriers, inserted at the headend, to scramble premium services. The "jamming" carriers can only be removed by adding passive notch filters at the end of the subscriber drop. (Truck rolls for upgrades or PPV.)
 - Channel blocking traps are passive notch filters that are installed at the subscriber tap to prevent reception of premium services. (Truck rolls also easy for theft.)

Interdiction systems offer addressability via the subscriber tap. The subscriber tap can be authorized to deliver only a pre-selected group of channels. (Very expensive: limits drops capability.) What proportion of cable systems (and the number and

can be restricted from these conveniences through the use of a cable converter. These restrictions in viewing capabilities can often be overcome through customized installs, multiple converters and/or simple customer education.

- o Which methods of scrambling and encryption systems do not interfere with the functions of subscribers. TV receivers, VCRs and other television equipment?
 - Certain interdiction methods are possibly the only scrambling techniques that do not interfere with the functions of subscribers' TVs, VCRs and other television equipment.
- o What types of cable converters are currently available to cable subscribers commercially from third parties?
 - There is no standard model of "cable ready" converter currently available commercially.
- To what extent do cable systems currently make converters and/or remote control units available for purchase by their subscribers?
 - Media General Cable does not. Our equipment may not work on other cable systems outside of our franchise area. If the equipment works at all on another system, it would only display unscrambled channels. The addressable descrambling features will not work on another cable system.
- o To what extent is it technically and economically feasible for cable systems to offer subscribers the option of delivering directly to subscribers, receivers or VCRs all signals that do not need to pass through a converter?
 - As indicated earlier, the necessity of preventing

Paragraph 13 - Consumer Equipment Features: Definition of "Cable Compatible" or "Cable Ready"

The FCC seeks information and comment on what features or technical requirements consumer television receivers, videocassette recorders and other related equipment should incorporate to be considered or sold as "cable compatible" or "cable ready." For consumer electronic equipment to be considered "cable ready" or "compatible" with Media General's system, it must have the following features or capabilities:

- o Harmonically related carriers to reduce signal degradation
- o Dual cable inputs, each capable of receiving signal out to 550 mhz
- Adequate shielding to contain signal leakage
- o Tuners capable of handling a wide frequency spectrum to prevent cross-modulation of channels
- o Channel mapping to re-align broadcast channels to their on-air channel numbers
- o Video blanking and audio muting of scrambled signals

Even with these features, the converter would not be capable of displaying scrambled channels.

In 1982, Media General negotiated a franchise for Fairfax County, Virginia which mandated the construction of a 120-channel, dual cable system. This mandate carried with it the requirement of a converter in every home. The mandatory converter, in essence, limits Media General's ability to be consumer equipment compatible. Media General's investment in its system and converters is over \$350 million to date. It is our desire to be as consumer-friendly as possible, but we are limited by the system we designed in 1983 according to franchise requirements.

The above list of features is required for consumer equipment to be considered compatible with Media General's system; however, Media General believes that, due to the vast diversity in cable systems with regard to technical specifications and features, it is not possible to formulate a universal definition of cable compatibility or cable readiness. The features defining a unit's compatibility with a cable system will vary depending on the technological features provided by the cable operator; therefore, the compatibility or cable readiness of consumer electronic

Paragraph 16 - Remote Control Units

- o To what extent is the same model of converter units provided to subscribers for both manual and remote control use?
 - All of the converters at Media General Cable have remote control capabilities.

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- To what extent do cable operators use technical systems that allow them to disable a converter's remote control function, either through a manually invoked control on the device itself, or through an electronic signal that can be transmitted to the device from the cable head-end?
 - Media General Cable has the technical capability to electronically disable the remote control function; however, the company will enable remote capability upon request by and without cost to the subscribers.
- o What portion of the market currently rents each type of cable remote control unit?
 - 68.94% of our subscribers rent at least one remote; 23.39% of our subscribers are supplied with at least one free remote due to the purchase of more than one premium service.
- o Now can the Commission best encourage the commercial availability of remote control units that are compatible with existing converter units?
 - Most "universal" remotes now on the market are already pre-programmed to operate with a wide variety of televisions, VCRs, stereo components and cable converters. Newer models of "universal" remotes, referred to as "smart" remotes, are capable of "learning" how to operate almost any infrared controlled device.

In order to ensure maximum compatibility and consumer convenience, require or encourage manufacturers, retail outlets and cable companies to label equipment disclosing the appropriate infrared compatibility codes.